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10/563,201	01/03/2006	Rolf Moors	TF94-22911/A/PFE 315/PCT	6473
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EXAMINER				
NGUYEN, VU ANH				
ART UNIT		PAPER NUMBER		
1796				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/563,201

**Applicant(s)**

MOORS ET AL.

**Examiner**

Vu Nguyen

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/99)  
Paper No(s)/Mail Date 05/22/2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 3, the phrase "preparable by", and in claim 3, line 2, the phrase "obtainable by" render unclear as to whether other composition A (in claim 1) and other polymeric isocyanate (in claim 3) made using other unspecified processes are also within the claimed scope. If applicant is intending to specify the composition A (in claim 1) and the polymeric isocyanate (in claim 3) which are produced by the recited processes, then the phrases "prepared by" and "obtained by" should be used in claim 1 and 3, respectively.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dirschl et al. (US 6,080,830) in view of Wamprecht et al. (US 2003/0065088).

6. Regarding the limitations set forth in these claims, Dirschl et al. (Dirschl, hereafter) discloses a method of treating fiber materials (col. 6, lines 15-19) using an aqueous dispersion comprising a perfluoroalkyl group-containing polymer and a composition obtained by reacting a fluorine-free polyfunctional isocyanate (having free isocyanate groups) with a hydroxyl amine such that the product still has free isocyanate groups which are then blocked with a blocking group (col. 1, lines 35-67). The reactions are done using methyl isobutyl ketone as solvent (i.e., no water) (col. 6, example 1). The polyfunctional isocyanate is prepared from a reaction of a diisocyanate, or mixture thereof, with a polyhydric alcohol and a monoether (col. 1, lines 42-49; col. 2, lines 1-56). The polyhydric alcohol includes 1,1,1-trimethylolpropane (col. 2, line 42) and the monoether includes diethylene glycol (col. 2, line 50). The diisocyanate comprises aromatic version such as tolylene diisocyanate (col. 2, line 16). The prior art also includes diisocyanates taught in EP-A 537 578 (col. 2, line 4), which discloses aliphatic, cycloaliphatic, and aromatic diisocyanates (col. 2, lines 63-65). The hydroxyl amine

includes N-methyldiethanolamine (col. 6, line 52) and the blocking group includes butanone oxime (col. 6, line 58). The aqueous dispersion also comprises two dispersants, one of which is cationic (col. 7 lines 56-67). The fiber materials include woven or knitted textile sheetlike structures (col. 5, lines 34-36).

7. Clearly, the prior art teaches all the limitations set forth in claims 1-9 with the following exceptions: (1) the disclosed composition does not have a monohydric alcohol component, and (2) the sequence of the two reactions involving amine and oxime is different from the claimed process.

8. Regarding the exception (2), the order of the two reactions involving amine and oxime is of no criticality to the final product and the change of the sequence of the reactions would have been obvious to one of ordinary skill in the art. In other words, the final products of the polyisocyanate-based compositions in the prior art disclosure and in the instant invention, except for monohydric alcohol component, are similar in composition.

9. Regarding the exception (1), Wamprecht et al. (Wamprecht, hereafter) teaches a polyurethane and its use for the thickening of aqueous systems (Title). The water-soluble/dispersible polyurethane is the reaction product of (a) a polyether polyol and a urethane group-containing polyether polyol, (b) at least one C6-C22 monoalcohol, (c) a (cyclo)aliphatic/aromatic diisocyanate, and (d) an oxime (Abstract). The monoalcohol employed in the disclosed examples include mixtures of alpha-alcohols of dodecane, decane, and octane (Tables 1&2). **[Motivations]** Wamprecht also teaches that, due to the incorporation of the hydrophobic monoalcohols [0009], the disclosed polyurethane

thickener has improved effectiveness in high-shear range compared to conventional polyurethane thickeners and does not require use of volatile solvents [0006-0009], and that it is particularly suitable for use in processes involving high-shear rates such as coatings by brushes or rollers and spraying [0006].

10. In light of such benefits and considering that both Dirschl and Wamprecht are directed to polyurethane-based aqueous formulations and, especially, Dirschl employs customary methods of treating fiber materials that include coating and spraying (col. 6, lines 15-18), it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the composition taught by Dirschl by incorporating the monoalcohols taught by Wamprecht in the polyisocyanate-based composition so that, due to the presence of the hydrophobic chains of the alcohols, the resulting fiber-treatment aqueous dispersion has improved effectiveness for the high-shear coating and spraying processes employed for treating fiber materials.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vu Nguyen whose telephone number is (571)270-5454. The examiner can normally be reached on M-F 7:30-5:00 (Alternating Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vu Nguyen/  
Examiner  
Art Unit 1796

/David Wu/  
Supervisory Patent Examiner, Art Unit 1796